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IDENTIFICATION OF Lotus tenuis (Waldst. et Kit.) FLAVONOIDS - PART II

In our first paper (Strittmatter et al., 1988) we reported the presence of important concentrations of free kaempferol (K) and kaempferol-3-O-glucosyl-7-O-rhamnoside (K-G-R) in vegetative material of Lotus tenuis cultivar Chajá.

We continued with this study considering the importance of L. tenuis as a naturalized species in a large area of Buenos Aires Province, where cattle production is sustained almost exclusively on these native grasslands (Montes, 1988).

In the present study stems, leaves and flowers, were analyzed separately. The methodology used was the same described in the first part (Strittmatter et al., 1988).

During flowering appeared (K) and (K-G-R) but also the presence of kaempferol-3-O-glucoside (K-G) could be determined (see Fig. 1).

As summarized in Table 1, flowers contained high concentrations of K-G, whereas the stems showed vestigial levels. The K-G-R was high in leaves, but in flowers and stems the concentrations decreased. The same levels of (K) were detected in leaves and stems.

We continued with the study of the rhythm of flavonoids production during all development stages of L. tenuis, results which will be published soon.

LITERATURE CITED

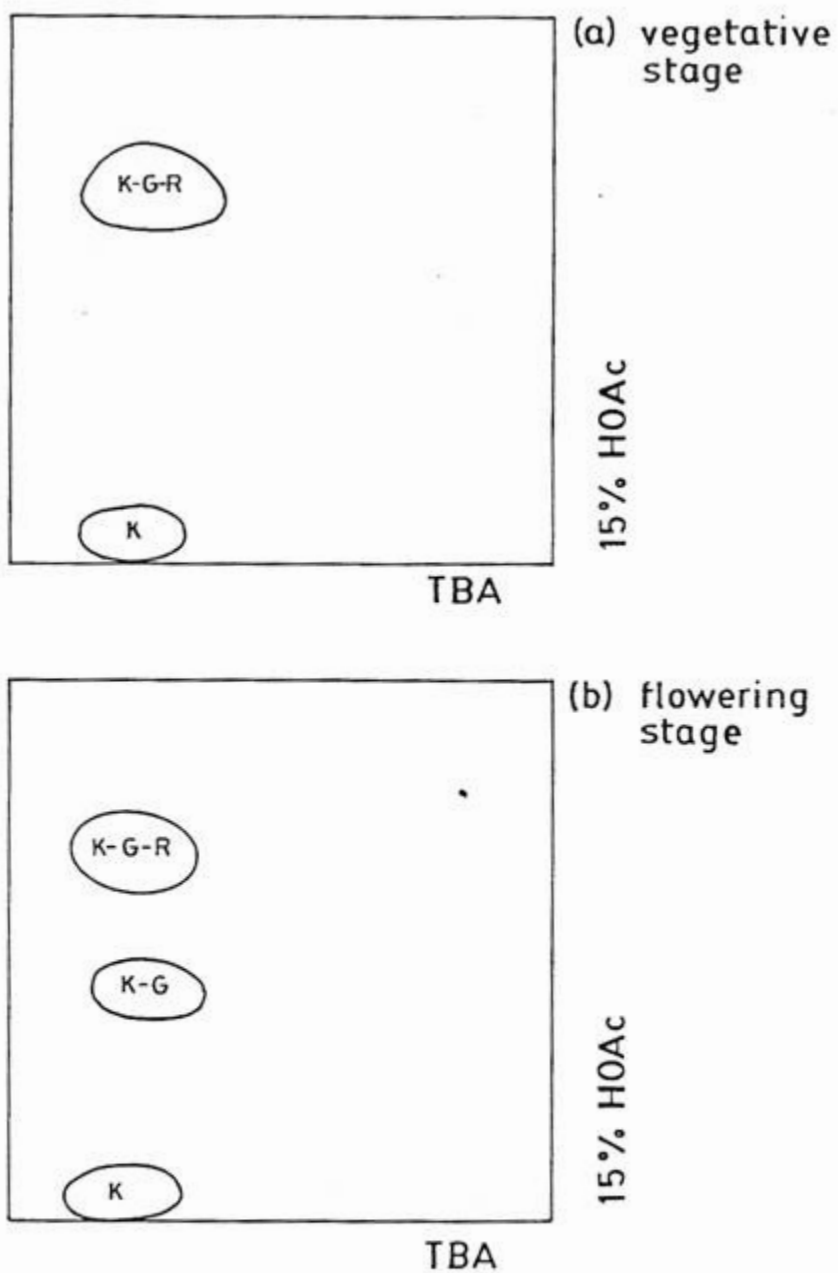
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Table 1: Flavonols distribution in the different parts of the plant during flowering stage.

Part of the plant	Flavonols		
	kaempferol	kaempferol-3-0-glucosyde	kaempferol-3-0-glucosyl-7-0-rhamnosyde
stems	+	+	++
leaves	++	+	+++
flowers	++	++	++

<sup>+</sup> trace      + presence      ++ abundance      +++ high abundance



**Fig. 1:** The two-dimensional paper chromatographic pattern of flavonoids obtained from *Lotus tenuis* cv. Chajá: a) vegetative stage, b) flowering stage.

K: kaempferol

K-G: kaempferol-3-O-glucoside

K-G-R: kaempferol-3-O-glucosyl-7-O-rhamnoside